

WHAT IS CLAIMED IS:

1. A verification system for a packet call processing operation of a mobile telephone, the verification system comprising:

5 a terminal for transmitting a packet call request message to the mobile telephone to establish a packet call for communication of packets with the mobile telephone, generating an Internet protocol packet after establishment of the packet call, transmitting it to the mobile telephone, and determining data processing characteristics of the mobile telephone based on a response packet received from the mobile telephone; and

15 a packet service simulator for receiving a response control message to the packet call request message from the mobile telephone to verify the control message processing between the terminal and the mobile telephone, and transmitting the Internet protocol packet received from the mobile telephone to an external network and transmitting a corresponding response packet received from the external network to the mobile telephone, thereby enabling the mobile telephone to transmit the response packet to the terminal.

20 2. The verification system as claimed in claim 1, wherein an Internet protocol address is individually assigned to the terminal, the mobile telephone, and the packet service simulator.

3. The verification system as claimed in claim 1, wherein the mobile telephone is linked to the packet service simulator via a local area network (LAN), the packet service simulator being linked to the external network.

4. The verification system as claimed in claim 1, wherein the packet service simulator analyzes the response control message received from the mobile telephone, generates a response packet when the response control message is successfully processed, and transmits it to the mobile telephone to establish the packet call.

5. The verification system as claimed in claim 2, wherein the packet service simulator comprises:

15 a packet transmitter for transmitting data having an Internet protocol address of the terminal to the external network in an Ethernet packet format; and

20 a packet receiver for receiving a packet destined for the Internet protocol address of the terminal from the external network and transmitting it to the mobile telephone, thereby enabling the mobile telephone to transfer the packet to the terminal.

6. The verification system as claimed in claim 2, wherein the packet service simulator receives the packet destined for the Internet protocol access of the terminal in response to an address resolution protocol (ARP) request for the Internet protocol address of the terminal, sent from the external access network, using its physical address.

7. The verification system as claimed in claim 1, wherein the

terminal executes a network application including Telnet, file transfer protocol (FTP), or the Web to generate an Internet protocol packet and transmit it to the mobile telephone, and receives a response packet to the Internet protocol packet from the mobile telephone to verify network data processing operations of the mobile telephone.

8. The verification system as claimed in claim 1, wherein the terminal is linked to the mobile telephone via a universal serial bus (USB).

9. The verification system as claimed in claim 1, wherein the terminal communicates packets with the mobile telephone according to a point-to-point protocol (PPP).

10. The verification system as claimed in claim 1, wherein a physical layer of the mobile telephone comprises an Ethernet, and a media control layer of the mobile telephone is modified into a module for supporting the Ethernet.

11. A verification method for a packet call processing operation of a mobile telephone, in which the mobile telephone is connected to a terminal and a packet service simulator that is linked to an external network, the verification method comprising:

upon the mobile telephone receiving a packet call request for verification of a packet data service from the terminal and transmitting a

corresponding call request control message, the packet service simulator analyzing the call request control message received from the mobile telephone and verifying control signal processing between the mobile telephone and the terminal;

upon successful control signal processing, the packet service simulator generating a packet corresponding to a response signal to the packet call request control message and transmitting it to the mobile telephone, thereby establishing a packet call to the mobile telephone;

the terminal executing a network application, generating an Internet protocol packet and transmitting it to the mobile telephone;

upon receiving the Internet protocol packet having an Internet protocol address of the terminal from the mobile telephone, the packet service simulator transmitting the Internet protocol packet to the external network;

the packet service simulator receiving a response packet destined for the terminal from the external network and transmitting it to the mobile telephone; and

upon receiving the response packet from the mobile telephone, the terminal verifying an operation of the network application based on the response packet and preparing statistic data for the received packet.

12. The verification method as claimed in claim 11, further comprising:

assigning an Internet protocol address individually to the terminal, the packet service simulator and the mobile telephone; and

the packet service simulator broadcasting an address resolution protocol (ARP) packet, including an Internet protocol address of the terminal and a physical address of the simulator, to the external network and recording it on a gateway for connection to the external network so as to receive a packet having the address of the terminal;

13. The verification method as claimed in claim 11, wherein the step of the terminal transmitting the Internet protocol packet to the mobile telephone comprises:

establishing point-to-point protocol (PPP) access to the mobile telephone; and

transmitting the Internet protocol packet to the mobile telephone according to a PPP protocol.

14. The verification system as claimed in claim 11, wherein the step of the packet service simulator receiving the response packet destined for the terminal from the external network comprises:

transmitting to the external network the ARP response packet having a physical address of the simulator and an Internet protocol address of the terminal to the ARP request packet requesting the physical address of the terminal sent from the external network; and

receiving the response packet destined for the terminal.

15. The verification method as claimed in claim 11, further

comprising:

the terminal requesting cancellation of a packet call established between the mobile telephone and the packet service simulator;

the mobile telephone transmitting a call cancellation control message corresponding to the cancellation request to the packet service simulator; and

the packet service simulator canceling the packet call to the mobile telephone based on the received control message and transmitting a corresponding response message to the mobile telephone to inform that the packet call is cancelled.

16. The verification method as claimed in claim 11, wherein the mobile telephone is linked to the packet service simulator via a local area network (LAN) and to the terminal via a universal serial bus (USB).